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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,789	11/16/2000	Gary Robinson	R49-009	5203

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EXAMINER

STIMPAK, JOHNNA

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,789

Applicant(s)

ROBINSON, GARY

Examiner

Johnna R Stimpak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 received 9/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The following is a final office action upon examination of application number 09/714,789. Claims 1-5 are pending and have been examined on the merits discussed below.

Response to Arguments

2. Applicant's arguments filed September 29, 2004 have been fully considered but they are not persuasive. Specifically, in response to applicant's argument to the prior 102 rejections that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., applicant's explanation of the terms "changes" and "clusters") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, since no amendments were made to the claims, prior rejections to the claims are upheld. These rejections are reproduced below for convenience.

3. Applicant's arguments regarding the 103 rejections to claim 2 using Shardanand in view of Steinbach have been considered but they are not persuasive. As claimed, Shannon entropy is used to determine whether the change in clustering would result in an improvement to the cluster. Steinbach teaches the use of Shannon entropy to measure the quality of a cluster to determine how well the clustering is working by comparing the groups produced. Examiner upholds previous 103 rejections for claim 2. The rejections are reproduced below for convenience.

4. Corrections to the abstract are accepted.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on September 29, 2004 was filed after the mailing date of the non-final office action on March 29, 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1 and 3-5** rejected under 35 U.S.C. 102(b) as being anticipated by Shardanand's, "Social Information Filtering for Music Recommendation".

As per **claim 1**, Shardanand teaches an input mechanism wherein data is collected for use in optimizing the clusters (page 25, users interact with the Ringo system (an agent for personalized music recommendation) by sending commands and data to a central server via email); a software mechanism for determining whether a particular possible change in the clustering would result in an improvement to the clustering (page 27, Ringo includes suggesting artists to users to improve or expand the users database of music); input facilities for possible changes to be suggested (page 31, users can add artists or albums into the database); facilities for implementing accepted changes; a display mechanism whereby users may observe the cluster

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membership (page 27, a web page view of the system wherein the user can view his or her personal profile with all the artists or albums in his or her database). Shardanand does not explicitly teach an input mechanism, a software mechanism or input facilities, but the Ringo system is a web-based system wherein it is inherent to the system that there is software running the system and input mechanisms and facilities to enter new artists or albums and to suggest recommendations.

As per **claim 3**, Shardanand teaches the input facilities for possible changes to be suggested comprises an HTML interface for humans to suggest changes, wherein said humans may be using multiple machines connected via the Internet (page 25, Ringo is an on-line service accessed through electronic mail, therefore there is an web-based interface for suggestions).

As per **claim 4**, Shardanand teaches the input facilities for possible changes to be suggested accepts machine-generated suggestions (page 25, the Ringo system suggests the possible changes).

As per **claim 5**, Shardanand teaches the input facilities for possible changes to be suggested accepts suggestions generated by remote machines connected via the Internet (page 25, the Ringo system allows for humans to write reviews, through email on the Internet, of music as suggestions to be dispensed to the other human users).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shardanand in view of Steinbach's reference to Claude Shannon's "A mathematical theory of communication" (1948), in "A Comparison of Document Clustering Techniques"..

As per **claim 2**, Shardanand teaches software mechanism for evaluating if the prediction for recommendation is reliable (page 62), but does not explicitly teach determining whether a particular possible change in the clustering would result in an improvement to the clustering is based upon information transfer calculations as described in the theory of Shannon's entropy. Steinbach teaches Shannon's external quality measure of clustering which involves evaluating how well the clustering is working (page 6, section 4). Since both Shardanand and Steinbach are directed to the clustering of data, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Shannon's clustering quality measure to evaluate if the clustering is improving or how well it is working.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566. The examiner can normally be reached on M-F 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS
12/20/04


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